User Guide

Thunder Shield

Model TS500D/TS600D/TS625D/TS650D/TS700D

/TS800D/TS850D/TS1000D/TS1200D

INTRODUCTION:

THIS MANUAL CONTAINS IMPORTANT SAFETY INSTRUCTIONS; KEEP THIS MANUAL HANDY FOR FUTURE REFERENCE. INSTALLATION AND OPERATION

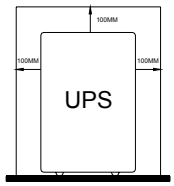
Before installation, please read and understand the following instructions:
Inspect the following items inside box:
☆User Manual
☆UPS

UNPACKING AND INSPECTION

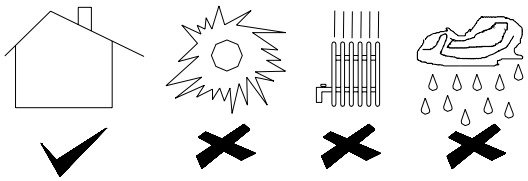
Examine the packing carton for damage. Notify your dealer immediately if damage is observed. Store the packing in a safe place for possible future trans-shipment of the UPS.

PLACE THE UPS

Position the UPS on a sturdy, dry surface in a well-ventilated area away from direct sources of heat. Leave at least 100mm clearance all around the UPS to provide adequate ventilation.

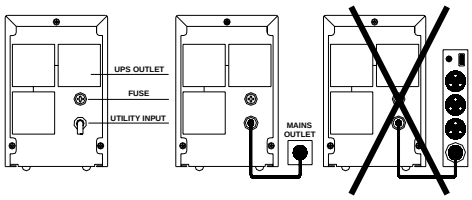


The UPS is intended for indoor use only. Although your UPS is very rugged, its internal components are not sealed from the environment. Kindly note the following.
☆Avoid direct sunlight
☆Avoid excessive heat
☆Avoid excessive humidity or liquids
☆Avoid excessive dust



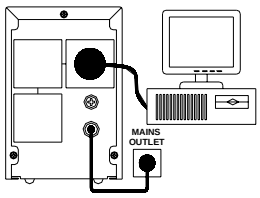
CONNECT UPS TO POWER

Connect the Power Cord, to a verified grounded 3-wire receptacle. Do not power the UPS using a surge suppressor of power strip. Switch the mains supply ON.

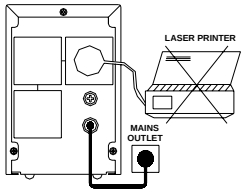


CONNECT EQUIPMENT TO UPS

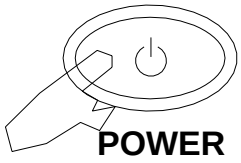
Now connect your load to be protected (computer, monitor etc.)to the AC Output receptacles at the rear of the UPS.



☆Do not connect a surge suppressor, or extension cord to the UPS outlet.
☆Do not connect a Laser printer or any non-computer peripherals to UPS outlets.

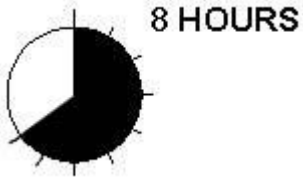


Enable the UPS by turning on the Power ON/OFF switch, which is situated on the front panel.



The UPS is now ready to use. Switch on your equipment and you are ready to function.

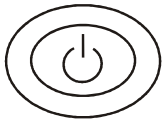
BATTERY MAINTENANCE/BATTERY CHARGING AFTER SHIPMENT FROM THE FACTORY THE BATTERY NEEDS RECHARGING. IF NOT USED FOR A LONG PERIOD OF TIME, THE BATTERY WILL START SELF-DISCHARGING, WHICH MAY RESULT IN A SHORT SERVICE LIFE OF THE BATTERY OR MAY EVEN CAUSE DAMAGE TO IT DURING WARRANTY PERIOD. CARE SHOULD ALSO BE TAKEN TO AVOID EXCESSIVE TEMPERATURE AROUND THE UPS, WHICH COULD ALSO RESULT IN REDUCING SERVICE LIFE OF THE BATTERY. TO ACHIEVE MAXIMUM SERVICE LIFE FROM THE BATTERY THE ABOVE INSTRUCTIONS SHOULD BE FOLLOWED.
The UPS battery charges whenever the UPS is connected to utility power & is switched ON. It typically requires less than eight hours to charge fully. Operating runtime is reduced until the battery is fully charged.



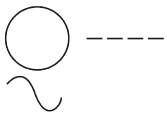
TEST THE UPS

To test UPS on battery back-up, switch off utility supply and observe ‘backup Indicator’ lights. Also your PC should continue to function normally.

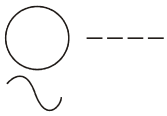
UPS Indicators and Controls



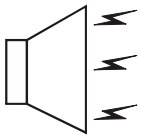
ON/OFF BUTTON----Turn ON this button to supply power to the UPS outlets. To switch off power to the UPS outlets turn OFF the switch. This switch is situated on the front panel of the UPS.



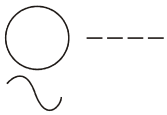
AC NORMAL INDICATOR (Green light continuous) ----The UPS is supplying conditioned utility power to its outlets.



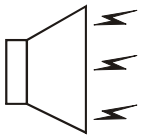
BACKUP INDICATOR (red light slow blinking) ----The indicator starts slow blinking when utility power is outside acceptable limits. The battery is powering the UPS outlets. The expected runtime for a typical personal computer (PC) is about 10 to 15 minutes.



SLOW BEEPPING----A one second duration tone is sounded two seconds after utility power loss has occurred. The UPS will continue to run with an audible alarm until a low battery condition is reached.



LOW BATTERY INDICATOR (Red light fast blinking). The indicator starts fast blinking whenever the battery is near the end of its runtime.



FAST BEEPING----The UPS is near the end of its battery runtime promptly save your data and exit all applications and shutdown the operating system.

Manual Shutdown

When the UPS is operating on battery the procedure below can be performed to conserve battery charge.

1. Save important working files.
2. Exit all applications
3. Exit the operating system
4. Turn off the UPS ON/OFF Switch which is situated on the front panel of the UPS.

COLD START

When the UPS is “Off” and there is no utility power, it is possible to power essential equipment connected to UPS. Make sure that only the most necessary equipment is connected to the UPS at this time.

1. Turn ON the UPS ON/OFF switch.
2. Complete what you need to do with the powered equipment, before the UPS battery is fully discharged.

SPECIFICATIONS

MODEL		TS500D	TS600D	TS625D	TS650D	TS700D	TS800D	TS850D	TS1000D	TS1200D
Input	Voltage	110Vac/115Vac/120Vac/220Vac/230Vac/240Vac								
	Frequency	50Hz/60Hz±5%								
Output	Frequency	50Hz /60Hz±5%								
	Voltage	110Vac/115Vac/120Vac/220Vac/230Vac/240Vac								
	Transfer time	<10ms including direction time								
	Wave form	Sine wave under mains supply, square wave under battery operation								
RS-232 interface (Optional)		☐ yes ☐ NO								
Surge protection (Optional)		☐ RJ11 ☐ RJ12 ☐ RJ45								
Protection	Overload	As load over 130%, UPS is protected in 3 seconds								
	AC input	Fuse for overload & short circuit								
	Short circuit	UPS Auto-shutdown								
Battery	Type	Sealed, lead acid maintenance-free								
	protection	Auto-inspection, discharge protection and battery fault caution								
	Battery	Battery should be charged once every three months, not less than 6 hours once a time.								
Audible alarm	Battery mode	Sufficient battery capacity, buzzer rings every 4 seconds, red light flashing								
		Insufficient battery capacity, buzzer rings every 1 seconds, red light flashing								
	low Battery or overload/short circuit	Buzzer keeps alarming, red light on								
Physical	Weight(kg)	5.8/6	5.5/6	6.2/6.4	6.4/6.7	7.9	8	8.5	10.5	11
	Size (LxWxH)mm	340x90x140/375x142x200				330x102x152			340x122x190	

Note: Product upgradation is a continuous process; hence specifications are subject to change without notice.

SAFETY

THE UPS CONTAINS VOLTAGES WHICH ARE POTENTIALLY HAZARDOUS. QUALIFIED SERVICE PERSONNEL SHOULD PERFORM ALL REPAIRS.

THE UPS HAS ITS OWN INTERNAL ENERGY SOURCE (BATTERY). THE OUTPUT RECEPTACLES MAY BE LIVE EVEN WHEN THE UPS IS NOT CONNECTED TO AN AC SUPPLY

TROUBLE SHOOTING

The trouble shooting chart covers most of the difficulties that you may encounter under normal working conditions. If the UPS fails to operate properly, please review the following steps before calling the service center.

1. Is the UPS plugged into a correct working outlet?
2. Is the line voltage within the rating specified?
3. Is the fuse/circuit protector on back panel open?

Please submit the following information when you call for service.

1. Model No. & Serial No.
2. Date of problem.
3. Full description of problem.

TROUBLE SHOOTING CHART		
SYMPTOMS	**POSSIBLE CAUSE**	**ACTIONS TO TAKE**
UPS can not turn ON & no indications no alarms	UPS front panel switch not turned ON	Turn ON UPS front panel switch
	No incoming utility line	Check input power at end of power cord and wall socket. Otherwise, call for service.
UPS suddenly turns to battery mode in spite of utility line present.	Rear panel input fuse open	Reduce the load and replace fuse with same rating
	Input utility line too high or too low	Check input line voltage
	Frequency out of range	Check input frequency
Single beep	Normal UPS operation	This is not a fault. The UPS is indicating that it is protecting the load during a momentary power loss.
Back-up time less than Specified	Battery is not fully charged	Recharge the battery for at-least 6 hours and re-lest the backup time if problem persists, call for service
UPS is normal but the computer won't turn-on	Computer input power cord is loose or not connected,	Reconnect computer input power cord.

SERVICE

DO NOT ATTEMPT TO SERVICE THE SYSTEM YOURSELF, NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

LIMITED WARRANTY

What the warranty covers:

We warrant this product to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, we will at our sole option repair or replace the product with a like product.

How long the warranty is effective:

For accurate warranty period and conditions, please contact local branch offices or your dealers.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product on which the serial number has been defaced modified or removed.
2. Damage, deterioration or malfunction resulting from:
   a) Accident, misuse, neglect, fire, water, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
   b) Repair or attempted repair by anyone not authorized.
   c) The fault is result of accidental damage or damage in transit or transportation, including but not limited to liquid spillage.
   d) Removal or installation of the product.
   e) Causes external to the product.
   f) Use of supplies or parts not meeting our specifications.
   g) Normal wear and tear.
   h) Any other cause which does not relate to a product defect.
3. Removal, installation and set-up service charges.

Life Support:

We do not recommend the use of our UPS products for life support equipment or direct care where failure of a UPS product could cause failure of or diminished effectiveness of the life support equipment of patient care.

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